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24112	7590	08/11/2008	EXAMINER	
COATS & BENNETT, PLLC 1400 Crescent Green, Suite 300 Cary, NC 27518			MARTINEZ, DAVID E	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/596,204	Applicant(s) FISCHER, JURGEN	
	Examiner DAVID E. MARTINEZ	Art Unit 2181	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8-11 and 13-17 is/are rejected.
- 7) ☒ Claim(s) 12 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 June 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>6/21/06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
- (f) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 14 and 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With regards to claims 14 and 17, the claims call for "SFP" modules which render the claims indefinite since it's not clear what the acronym stand for. Applicant's admitted prior art (in paragraph 2 of the specification) describes recites a "Small Form factor Pluggable transceiver" which as an acronym should read SFP but instead it is recited as FSP which makes it unclear as to what SFP stands for. It is the examiner's assumption that SFP stands for the Small Form factor Pluggable form factor.

Due to the vagueness and a lack of clear definiteness in the claims, the claims have been treated on their merits as best understood by the examiner.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 8-11, 13 and 15-16 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent No. 5,870,626 to Lebeau.

With regards to claim 8, Lebeau teaches a plug-in module frame [fig 1 element L] comprising:

at least one socket having at least one signal contact for communicating information signals between the plug-in module frame and a plug-in module mounted to the socket [fig 1 elements 1-4 and 18-19 are connected to element 20 via cables 5-8 and 16-17 which are coupled via sockets, column 1 lines 40-61 and column 2 lines 20-38 and 45-67], the socket comprising type detecting circuitry to detect a characteristic of the plug-in module mounted in the socket, the characteristic being associated with a protocol supported by the plug-in module [column 2 lines 20-38]; and

a protocol converter [fig 1 element 20] operatively connected to the type detecting circuitry [fig 1 elements 9-15] and having first and second terminals [fig 1 elements 9-15], the protocol converter operable to support a plurality of protocols [column 2 lines 45-67] and configured to:

- receive a first information signal encoded according to a first protocol at the first terminal [column 2 lines 20-38 and 45-67];

- convert the first information signal from the first protocol to a second protocol based on the detected characteristic [column 2 lines 20-38 and 45-67];

- transmit the converted first information signal encoded over the second terminal [column 2 lines 20-38 and 45-67].

With regards to claim 9, Lebeau teaches the plug-in module frame of claim 8 wherein the protocol converter is further configured to:

- receive a second information signal encoded according to the second protocol at the second terminal [column 1 lines 40-61 and column 2 lines 20-38 and 45-67];

- convert the second information signal from the second protocol to the first protocol based on the detected characteristic [column 1 lines 40-61 and column 2 lines 20-38 and 45-67]; and

- transmit the converted second information signal over the first terminal [column 1 lines 40-61 and column 2 lines 20-38 and 45-67].

With regards to claim 10, Lebeau teaches the plug-in module frame of claim 8 further comprising a plurality of sockets, each socket including a signal contact and type detecting circuitry [fig 1 elements 1-4 and 18-19 are connected to element 20 via cables 5-8 and 16-17 which are coupled via sockets].

With regards to claim 11, Lebeau teaches the plug-in module frame of claim 10 wherein the protocol converter comprises a plurality of converter units, each converter unit being operable to support a subset of the plurality of protocols [fig 1 elements 9-15 column 2 lines 20-38 and 45-67].

With regards to claim 13, Lebeau teaches the plug-in module frame of claim 8 wherein the type detecting circuitry comprises a circuit to address and read a storage component [column 2 lines 20-38 and 45-67].

With regards to claim 15, Lebeau teaches a plug-in module configured to be inserted into a plug-in module frame, the plug-in module [fig 1 elements 1-4 and 18-19 are connected to element 20 via cables 5-8 and 16-17 which are coupled via sockets, column 1 lines 40-61 and column 2 lines 20-38 and 45-67] comprising:

a type encoding device to interface with a type detecting unit associated with the plug-in module frame [fig 1 elements 1-4 and 18-19 are connected to element 20 via cables 5-8 and 16-17 which are coupled via sockets, column 1 lines 40-61 and column 2 lines 20-38 and 45-67];
and

the type encoding device being configured to encode an information signal according to a protocol that is supported by the plug-in module [fig 1 elements 1-4 and 18-19 are connected to element 20 via cables 5-8 and 16-17 which are coupled via sockets, column 1 lines 40-61 and column 2 lines 20-38 and 45-67].

With regards to claim 16, Lebeau teaches the plug-in module of claim 15 wherein the type encoding device comprises an electronic read-only memory [fig 1 elements 18-19 are computers that include read-only memory].

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 14 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 5,870,626 to Lebeau in view of Applicant's Admitted Prior Art found in the instant Patent Application Publication No. US 2008/0039060 A1 (hereinafter AAPA).

With regards to claim 14, Lebeau fails to teach the plug-in module frame of claim 8 wherein the socket is configured to receive a SFP module. However, AAPA teaches using the SFP form factor for data transfer between elements in order to be able to process data according to different protocols in a common fashion at the physical layer [AAPA paragraph 2-3].

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Lebeau and AAPA to have the socket be configured to receive a SFP module (SFP form factor) for the benefit of being able to process data according to different protocols in a common fashion at the physical layer [AAPA paragraph 2-3].

With regards to claim 17, Lebeau fails to teach the plug-in module of claim 15 wherein the plug-in module comprises an SFP-plug-in module. However, AAPA teaches using the SFP form factor for data transfer between elements in order to be able to process data according to different protocols in a common fashion at the physical layer [AAPA paragraph 2-3].

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Lebeau and AAPA to have plug-in module comprise an SFP-plug-in

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module (SFP form factor) for the benefit of being able to process data according to different protocols in a common fashion at the physical layer [AAPA paragraph 2-3].

Allowable Subject Matter

Claim 12 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

With regards to claim 12, the prior art alone or in combination fails to teach or fairly suggest the plug-in module frame of claim 11 further comprising switching circuitry to selectively connect a signal contact of a first socket to a corresponding one of the protocol converter units based on the protocol associated with the characteristic detected by the type detecting circuitry of the first socket.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US Patent No. 7,317,733 to Olsson et al. teaches small form factor (SFP) transceiver module that provides protocol conversion.

US Patent Application Publication No. 2005/0063647 to Thornton et al. teaches modular plugs and socket connectors.

US Patent No. 7,070,446 to Henry et al. teaches a stacked SFP connector and cage assembly.

US Patent No. 6,692,159 to Chiu et al. teaches SFP pluggable modules.

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Small Form-factor Pluggable (SFP) Transceiver MultiSource Agreement / SFP transceiver specification, 9/14/00, pages 5-38 teaches the SFP mechanical and electrical interface.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DAVID E. MARTINEZ whose telephone number is (571)272-4152. The examiner can normally be reached on 8:30-5:00 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alford Kindred can be reached on 571-272-4037. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DEM

/Alford W. Kindred/
Supervisory Patent Examiner, Art Unit 2181